

## Healthy Living Logic Model – Physical Activity and Well-Being

### **SITUATION**

In 1999, a Surgeon General's report on physical activity concluded that moderate physical activity can reduce the risk of developing heart disease, diabetes, colon cancer, and high blood pressure. Almost ten years later, the 2008 Physical Activity Guidelines were released recognizing the value of physical activity as an important component of an overall healthy lifestyle. These guidelines are timely as physical inactivity is a pressing national health issue. On average, physically active people outlive those who are inactive and regular physical activity leads to an improved quality of life for people of all ages (Healthy People 2010).

However, national trends indicate that physical activity levels decrease across the lifespan. To intervene in these trends, multiple opportunities for being physically active should be provided to people at all ages, skill levels, and socio-economic groups and at a wide variety of community places and access points (US CDC, 2009; Community Guide). Regular physical activity and physical fitness across the lifespan are important to an individual's health, sense of well-being, management of stress, and maintenance of a healthy body weight. For children and youth to meet recommended guidelines, they should engage in 60 minutes of moderate to vigorous physical activity (aerobic, muscle strengthening, bone strengthening) most days of the week – ideally – every day (US HHS Physical Activity Guidelines for Americans, 2008).

Physical activity data from 2002 indicates that 77% of 9-13 year olds reported participating in free time physical activity in the week prior to being surveyed. Results were less favorable for high school youth who, in 2007, reported that 26% of high school girls and 44% of high school boys were active at least 60 minutes/day on 5 or more of the 7 days preceding the survey (US HHS Division of Adolescent and School Health (DASH), National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC), 2008).

### **4-H HEALTHY LIVING LOGIC MODEL DETAILS**

- *Outcomes appropriate for children ages 5-9 are noted as **(child)***
- *Outcomes appropriate for youth ages 10-19 are noted as **(youth)***
- *Outcomes appropriate for family and community are noted as **(family)***
- *Outcomes appropriate for community are noted as **(community)***

### **OUTCOMES:**

Short – Learning (Knowledge, Attitudes, Skills, Aspirations – KASA)

**Children, Youth and Families have the knowledge and skills necessary to improve their physical activity practices.**

**Indicators**

- (youth, family) recognize the importance of physical activity (aerobic activity, muscle strengthening, bone strengthening ) as assessed by accepted measures (CDC Physical Activity Guidelines)
- (youth, family, community) understand the importance of being more physically active together
- (child, youth, family) gain knowledge, attitudes, skills, and aspirations to increase physical activity practices
- (child, youth, family, community) identify safe places in their community where they can be physically active

#### Mid – Actions (Behavior)

**Children, Youth, and Families adopt new or improved habits and behaviors related to physical activity practices.**

##### **Indicators**

- (child, youth, family) engage in regular physical activity
- (child, youth, family) maintain physical activity at recommended levels  
<http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html>
- (child, youth, family, community) create opportunities to be physically active together
- (community) provide access to safe places in the community where (child, youth, family) can be physically active

#### Long – Conditions

- (child, youth) reduce proportion of children and adolescents who are overweight or obese
- (child, youth) increase physical stamina
- (child, youth, family) decrease risk for serious disease and illness, physical and emotional distress

### **OUTPUTS**

#### **Who We Target (Audiences)**

- Youth (with special focus on new and underserved), families, staff, volunteers, community leaders, partner organizations, collaborators

#### **What We Do (Activities)**

- Provide access and utilization to physical activity opportunities in neighborhoods , after school,
- Provide adequate physical activity facilities during organizational events (school, club, team, groups) meeting, and events)
- Implement interventions that reduce screen time and increase physical activity
- Advocate for improved indoor and outdoor environments for family physical activity, recreational and organized sports

- Design and implement programs with multiple components such as using environmental changes, policy changes, social marketing campaigns, curricula that meet physical activity and muscle strengthening standards for skill building and self-efficacy, and involve families in meaningful ways.

(Adapted from: Society for Nutrition Education, 2009. *State of Nutrition Education & Promotion for Children & Adolescents*)

#### What We Produce (Tangible Products)

- Cooperative and experiential learning, peer mentoring, family engagement, non-formal educational programs, projects, trainings, workshops, internships and apprenticeships, applied research, evaluations, convened coalitions, grant proposals developed and awarded, needs assessments, social marketing campaigns, disseminated and replicated programs, published curricula and peer-reviewed articles/resources

#### **INPUTS**

- Evidence-based and evidence-informed curricula
- Tradition, prestige, and history of the network of Land Grant and Public Universities
- Human Resources (paid staff, volunteers, instructors, specialists, leaders, stakeholders)
- Existing 4-H Youth Development and Families curricula, delivery modes and programs
- National reports and standards (e.g., Healthy People 2020) that establish benchmarks for Healthy Living outcomes
- National partners with interest in supporting Extension's 4-H Healthy Living network
- Published and unpublished research and valid literature focused on health behaviors, health promotion, youth development, family development, and community development
- Financial supports such as grants, categorical funding, and fees
- Relationships with national, regional, state, and local health experts, public health networks and health advocates
- Facilities – local, state, regional
- Youth leaders and partnerships with networks of young people
- Electronic resources (e.g., eXtension, web conferencing, and wikis)
- Cornerstones of a Healthy Lifestyle:
  - a. Access – access to safe places and opportunities to engage in physical activity.
  - b. Collaboration – effective partnerships across the generations.
  - c. Science and Research – understanding the science and research behind effective health promotion strategies.
  - d. “Workforce” (volunteer and paid) – increasing the capacity of everyone participating in health promotion efforts.
  - e. Communications – increasing awareness and understanding of the value of healthy living through effective, appropriate, and targeted communication.

(Adapted from: *Blueprint for Nutrition and Physical Activity*, 2006. Association of State and Territorial Public Health Nutrition Directors (ASTPHND).)

### **ASSUMPTIONS/GIVENS**

- The contributions 4-H makes to positive youth development through multi-generational, mixed-gender, family-engaged, non-formal education is valuable to all youth.
- Extension can make unique contributions to the health and well-being of young people and their families.
- Young people and their families need to be involved in meaningful learning experiences
- 4-H Healthy Living program development and program implementation will focus on the risk and protective factors.
- Health behaviors are complex and there will continue to be risk and protective factors on which 4-H will have little impact.
- Youth will face an increasing amount of choices and opportunities.
- 4-H Healthy Living programs will evolve.
- Youth and their families can improve their health through increased healthy living knowledge, taking advantage of resources, and reducing risk factors.
- Youth and their families have the ability to reach optimal physical, social/emotional health, and well-being.

### **ENVIRONMENTAL – EXTERNAL FACTORS/ ORGANIZATIONAL**

- Families will continue to face resource constraints (time, money, transportation, etc.).
- Demands on family time will continue to be a factor in the programs they choose to participate in over time.
- Changes in society and health practices/services/access will impact young people and their families.
- Research will continue to inform the connections between healthy living and positive youth development.
- Obesity prevention and health improvements will continue to be a core mission at the USDA/NIFA, state, and local Extension systems.
- High priority will be placed on policy change for individuals and community.
- Peer influence (youth, family, community) has a strong influence on creating changes.

### **EVALUTION PLAN COMPONENTS**

- Health habits survey, checklist, portfolio, photo voice, and observed use of pedometers.
- KASA (knowledge, attitudes, skills and aspirations/ intentions) data gathered via surveys, focus groups, interviews.
- Health behavior change and health behaviors maintenance data gathered via surveys, focus groups, interviews, case studies, and reports from trained observers.
- Learner self-reports focused on outcomes.
- Program effectiveness RE-AIM data (Glasgow R.E., Vogt, T. M. , & Boles, S. M. [1999]).

- Process evaluations and accomplishments.
- Monitor existing trend and surveillance data from other studies and networks.
- Youth risk survey, portfolio of activities and life changes.
- Monitor (Extension Service data report) ES237.
- Review of state Healthy Living plans across regions.

## **RESOURCES**

Association of State and Territorial Public Health Nutrition Directors [ASTPHND] (2006). *Blueprint for Nutrition and Physical Activity*. Retrieved on August 1, 2009 from [www.movingtothefuture.org](http://www.movingtothefuture.org)

Federal Interagency Forum on Child and Family Statistics (2009). *America's Children: Key National Indicators of Well-Being*, US Office of Management and Budget. Retrieved August 1, 2009 from [www.childstats.gov](http://www.childstats.gov)

Glasgow RE, Vogt TM, & Boles SM (1999). *Evaluating the public health impact of health promotion interventions: the RE-AIM framework*. American Journal of Public Health vol. 89(9), p. 1322-1327.

Silliman, B. (2007). *Critical Indicators of Youth Development Outcomes for 4-H National Mission Mandates • Science, Engineering, and Technology • Citizenship • Healthy Living*. National 4-H Headquarters. Retrieved July 15, 2009 from [http://www.national4-hheadquarters.gov/library/Indicators\\_4H\\_MM.pdf](http://www.national4-hheadquarters.gov/library/Indicators_4H_MM.pdf)

Society for Nutrition Education (2009). *State of Nutrition Education & Promotion for Children & Adolescents*. Retrieved August 3, 2009 from [http://www.sne.org/documents/SNENENPES630\\_exec\\_summary\\_000.pdf](http://www.sne.org/documents/SNENENPES630_exec_summary_000.pdf)

US HHS CDC, National Center for Health Marketing [NCHM], 2009. *The Community Guide: What Works to Promote Health*. Retrieved August 1, 2009 from [www.thecommunityguide.org/index.html](http://www.thecommunityguide.org/index.html)

US HHS CDC, National Health and Nutrition Examination Survey (NHANES) (2009). Retrieved August 1, 2009 from [www.cdc.gov/nchs/nhanes.htm](http://www.cdc.gov/nchs/nhanes.htm)

US HHS Division of Adolescent and School Health (DASH), National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), Centers for Disease Control and Prevention (CDC) (2008). *Physical Activity and the Health of Young People*. Retrieved Oct. 28, 2009 from [www.cdc.gov/HealthyYouth/physicalactivity/pdf/facts.pdf](http://www.cdc.gov/HealthyYouth/physicalactivity/pdf/facts.pdf)

US HHS MMWR (2003). *Physical Activity Levels Among Children Aged 9--13 Years --- United States, 2002*. Retrieved August 1, 2009 from [www.cdc.gov/mmwr/preview/mmwrhtml/mm5233a1.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5233a1.htm).

US HHS Healthy People 2020: Update of and Healthy People 2010. Retrieved on Nov. 6, 2009 from

National 4-H Healthy Living Task Force, April 2010

[www.healthypeople.gov/HP2020/Objectives/TopicAreas.aspx](http://www.healthypeople.gov/HP2020/Objectives/TopicAreas.aspx)

US HHS Physical Activity Guidelines for Americans, (2008). Retrieved August 1, 2009 from [www.health.gov/paguidelines/guidelines/chapter3.aspx](http://www.health.gov/paguidelines/guidelines/chapter3.aspx)

US HHS Physical Activity Guidelines for Americans, (2008). How much physical activity do you need. Retrieved February 25, 2010 from <http://www.cdc.gov/physicalactivity/everyone/guidelines/index.html>